

REMARKS

The present application has been carefully studied and amended in view of the outstanding Office Action dated March 21, 2008, and reconsideration of the rejected claims is requested in view of the following comments.

Allowable claims 46, 48, 50 and 51 have been rewritten in independent form. Accordingly, these claims are in condition for formal allowance. Allowable dependent claims 52-54 are also in condition for formal allowance. Remaining claims 44, 45, 47 and 55 are also believed to be directed to allowable subject matter for the reasons discussed below.

Applicant respectfully submits that claims 44, 45, 47 and 55 particularly define a cigarette which is neither shown nor suggested by the prior art taken alone or in combination with one another. Specifically, these claims are not rendered obvious by the combination of Gentry et al US 5,568,819 in view of Lebet et al US 4,412,829 ("Lebet") and Hall US 4,425,107, for the reasons discussed below.

Claim 44 and dependent claims 45, 47 and 55 define a cigarette comprising a tobacco rod and a multi-component filter that includes a cavity holding a bed of adsorbent granules (Specification page 8, line 12). The cavity is at least 85% filled with the adsorbent granules in order to substantially remove at least one gas phase smoke constituent from the mainstream smoke as it is drawn through the filter (Specification page 11, lines 20-22).

The filter of the present invention includes at least one flavor-releasing component downstream of the bed of adsorbent granules, and such flavor-releasing component has an upstream end portion adjacent the bed of adsorbent granules. Ventilation is critically located downstream of the adsorbent granules at the upstream end portion of the flavor-releasing component.

Gentry is significantly different from the subject matter of the rejected claims in that this reference does not disclose or suggest a cavity with a bed of adsorbent granules therein. Instead, as recognized by the Examiner, the construction of Gentry simply shows a mass of paper which is not the equivalent of the adsorbent granules defined in each of the rejected claims. Moreover, the claimed bed of adsorbent granules is far removed from the mass of paper disclosed by Gentry. Clearly, the bound wood fibers in the paper of Gentry are not the equivalent to the claimed adsorbent granules. These granules freely flow into the cavity during filter formation which is not possible with the wood fibers of Gentry's filter paper.

Equally significant is the fact the paper in cigarette filters is traditionally used to primarily remove particulate material from a tobacco smoke stream whereas the adsorbent granules of the present invention primarily remove at least one gas phase constituent.

Additionally, Gentry fails to suggest a cavity of such granules let alone a cavity which is at least 85% filled with adsorbent granules. The limitation of at least 85% fill is set forth in each of the rejected claims, and such "complete" fill reduces/eliminates channeling of the smoke stream for efficient gas phase removal.

Applicant is the first to admit that adsorbent granules per se are old in the art even adsorbent granules in cigarette filters. However, the similarity stops there, and nothing in the prior art suggests adsorbent granules in a filter construction as specifically defined in claim 44 and remaining dependent claims 45, 47 and 55. Lebet and Hall simply disclose adsorbent particles in a cigarette filter, but not the filter of the present invention. Moreover, reconstruction of Gentry in view of Lebet and Hall in arriving at the filter of the present invention to totally impossible without the present specification serving as the blueprint for such change. Such reconstruction of Gentry dramatically alters the function of Gentry's filter by impermissible substitution of gas phase removal (adsorbent granules) for Gentry's particulate removal (paper). There is simply no suggestion or motivation in the prior art for such change of Gentry.

In the present invention, the relationship between the adsorbent granules and the downstream flavor-releasing component is particularly advantageous in producing a tobacco smoke stream having a desirable taste where mainstream tobacco smoke is initially purged of at least one gas phase smoke constituent after which flavor is released into the smoke stream. It is believed that some portion of the particulate phase of mainstream tobacco smoke is removed as the stream is drawn through the adsorbent granules, and that at least some of the tar constituents that contribute taste and flavor to the cigarette smoke are removed. However, in the present invention after the removal affect of the adsorbent granules, flavor is released into the tobacco smoke at a downstream location by the flavor-releasing component of the cigarette filter.

Also, the recited ventilation is important as well as the particular location of such ventilation in that the velocity of the mainstream tobacco smoke through the adsorbent particles is slower when compared to a similar filter without ventilation. This results in more dwell time of the tobacco smoke in contact with the adsorbent granules which increases the efficiency of gas phase smoke constituent removal. The molecules of the gas phase constituents randomly move in all directions amongst the adsorbent granules as the mainstream smoke progresses therethrough.

Additionally, with ventilation at the upstream end portion of the flavor-releasing component, the mainstream tobacco smoke and the ventilation air together are drawn faster past the downstream portion of the flavor releasing component, which effectively enhances the release of flavor to the smoke. With relatively low velocity around the adsorbent granules, and higher velocity through the downstream portion of the flavor-releasing component, removal efficiency by the adsorbent granules and flavor release at the flavor-releasing component are both enhanced by the particular placement of ventilation as specifically claimed.

As the mainstream smoke passes through the absorbent granules, it is subjected to additional heat and moisture due to adsorption and condensation processes at or about the granules. In addition, the ventilation air that is admitted into the peripheral

regions of the upstream portion of the flavor component tends to concentrate the warmed, moisture laden mainstream smoke in the central regions of the flavor releasing component where the flavor is usually positioned. These effects further enhance release of flavor to the mainstream smoke as it is drawn through the flavor-releasing component.

For the reasons discussed above, the cigarette filter of Gentry is fundamentally different from the specific arrangement of components set forth in the rejected claims. While Gentry discloses a flavorant, the filter components of the present invention have a unique relationship to one another in that mainstream tobacco smoke is initially purged of at least one gas phase smoke constituent, and downstream therefrom flavor is added to the smoke stream via at least one flavor-releasing component. Moreover, the unique and specific positioning of the recited ventilation maximizes the dwell time of the mainstream smoke amongst the adsorbent granules thereby enhancing removal of at least one gas phase smoke constituent therefrom. Also, the ventilation contributes to enhanced flavor release into the smoke stream already efficiently purged of the targeted smoke constituent.

Additionally, applicant respectfully requests reconsideration of the rejection of claim 44 on the ground of double patenting. First and foremost is the fact that any patent issuing from the present application will have a term that expires 20 year from its effective filing date of February 22, 2002. On the other hand, any patent that issues from co-pending application serial no. 11/346,429 will have a patent term that expires 20 years from the effective filing date of that application, such date being February 3, 2006. Accordingly, there is no term to disclaim since a patent on the present application will expire approximately four years earlier than any patent on the co-pending application.

Additionally, the secondary reference of the double patenting rejection, namely Keitsis US 5.115.823, broadly discloses ventilation, but fails to disclose or suggest the

critical location of such ventilation relative to the other filter components as specifically recited in claim 44.

For these reasons it is respectfully requested that the double patenting rejection be reconsidered and withdrawn.

Accordingly, for the reasons noted above it is believed that all of the claims in the application are directed to allowable subject matter and early notification to that effect is respectfully requested.

Please charge our Credit Card in the amount of \$420.00 covering the fees for two extra independent claims. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 04981-00493-US..

Respectfully submitted,

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